DEPARTMENT OF THE NAVY



NAVAL SEA SYSTEMS COMMAND 1333 ISAAC HULL AVE SE WASHINGTON NAVY YARD DC 20376-0001

IN REPLY TO

NAVSEAINST 5240.2B SER 04/025 14 December 2004

NAVSEA INSTRUCTION 5240.2B

From: Commander, Naval Sea Systems Command

Subj: MANAGEMENT CONTROL SYSTEM FOR INDUSTRIAL PROCESSES IN NAVAL SHIPYARDS AND SHIP MAINTENANCE ACTIVITIES

Ref: (a) NAVSEA TL855-AA-STD-010, Naval Shipyard Quality Program Manual

(b) NAVSEA Ltr 5400 Ser 04/139, Subj: Uniform Industrial Process Instruction (UIPI) Issue and Resolution Procedure, Process Standardization, 08 Jun 2001

(c) NAVSEAINST 5400.95; Waterfront Engineering and Technical Authority Policy

Encl: (1) Preparation and Change Control of Industrial Process Instructions/Uniform Industrial Process Instructions

1. Purpose

- a. Establish a system for identification, selection, management, control, and improvement of industrial processes for naval ship maintenance activities consistent with reference (a). Establish the best practice that is technically acceptable for all Naval Shipyards. Provide a process that obtains concurrence /approval from all Naval Shipyards' Chief Engineers, Nuclear Engineering and Planning Manager other appropriate shipyard organizations. Provides NAVSEA review of the shipyards' implementing instructions to ensure that UIPIs that are designated best practice UIPIs are executed at each shipyard in a similar manner. This instruction is a major revision/change with the processing and approving UIPIs.
- b. Provides direction for the content, preparation, format, and control of Industrial Process Instructions (IPIs) and provides a process for the additional controls of preparing, reviewing, approving, and issuing UIPIs (which also require NAVSEA review/concurrence). All Corporate UIPIs will be reviewed and concurred with by the NAVSEA Maintenance Process Standardization Technical Warrant holder (SEA 04Y/05Y) to ensure

there is sufficient technical information and detail to attain a "best practice" at all shipyards.

- c. UIPIs that are those processes and methods which all shipyards have agreed to use as a best method/practice corporately. The NAVSEA Technical Warrant Holder (SEA 04Y/05Y) will review these UIPIs to ensure these processes meet the content requirements to establish a "best practice".
- d. This UIPI review and approval process ensures all prescribed organizational elements of the shipyards are involved in the review process, that acceptable and timely adjudication is achieved for comments/input from the follow shipyards by the lead shipyard and a requirement for a formal implementation plan is established at each shipyard after corporate issue by NAVSEA Implementation letter. This revision incorporates the contents of reference (a) and supercedes reference (b).
- e. Establish clear lines of authority and accountability for ensuring that shipyard industrial processes result in safe, effective, and efficient accomplishment of desired technical outcomes. Reference (c) defines the technical authority and delegates to Naval Shipyard Chief Engineers their technical responsibility for the non-nuclear processes and methods.
 - f. This NAVSEA instruction is effective upon issue.
- 2. <u>Cancellation</u>. NAVSEAINST 5240.2A is superseded. NAVSEA Ltr 5400 Ser 04/139, Subj: Uniform Industrial Process Instruction (UIPI) Issue and Resolution Procedure, Process Standardization, 08 Jun 2001, reference (b), is superseded.
- 3. Scope. This instruction applies to both IPIs and UIPIs that are industrial processes practiced by the shipyards. All UIPIs also require NAVSEA review and/or concurrence. Some of these UIPIs can be designated by NAVSEA to be applicable for both non-nuclear and nuclear work (dual-use processes/methods). UIPIs are intended for use by all Naval Shipyards and other ship maintenance activities, when designated and invoked by NAVSEA and the authorizing Supervisor of Shipbuilding. The goal is to have all UIPIs in a corporate program for preparation, maintenance and update. IPIs are those industrial processes individually practiced at a shipyard that are designated and should be controlled at the individual shipyard level. IPIs need not apply to all shipyards.

4. <u>Definitions</u>

- a. <u>Industrial Process</u>. A series of operations used to achieve the desired product and technical outcome. These processes are used in the installation, repair, alteration, inactivation, or disposal of ship systems or components.
- b. <u>Uniform Industrial Process Instruction (UIPI)</u>. A UIPI prescribes the best corporate practice for accomplishing industrial processes while maximizing the shipyards efficiency and productivity, and those practices which should be performed the same way at all applicable Naval Shipyards and maintenance facilities. UIPIs shall not change NAVSEA technical specifications without NAVSEA concurrence. UIPIs require reviews for best practice and level of standardization compliance. UIPIs can also be designated as dual-use for both nuclear and non-nuclear work. The dual-use UIPIs will require review and concurrence by additional NAVSEA organizations including SEA 08X.
- c. Industrial Process Instruction (IPI). A document that defines a complex and/or critical industrial process that should be controlled at the shipyard level. IPIs must be technically in compliance with higher order NAVSEA technical specifications and requirements. An IPI includes system information (e.g., procedures, methods, responsibilities, equipment, material, trade skills, training, quality assurance, and occupational safety, health, and environmental controls) essential to the accomplishment and control of the industrial process. It is intended to be a complete, consolidated, work execution tool for the mechanic and a technical control tool for management. These IPIs are not required to be used corporately.
- NAVSEA Corporate Issue. The NAVSEA Corporate issue of a UIPI will occur, after review and concurrence by all shipyards' applicable technical organizations and the NAVSEA designated Technical Warrant holder (SEA 04Y/05Y) for maintenance and industrial processes, to ensure the proposed UIPI has sufficient technical and descriptive detail and to establish a best practice/method. This NAVSEA review will also provide concurrence of needed training requirements that must be established. The review and concurrence by SEA 04Y/05Y will have included a review by the SUBMEPP organization and/or SEA 07T (for those UIPIs applicable to submarines). SEA 04Y/05Y's signature signifies this action has been taken and any other required NAVSEA concurrences have been obtained. NAVSEA 04Y will then provide an implementation requirement letter to be issued with the lead/preparing shipyard's accomplishment of the

NAVSEA Corporate issue of each UIPI. The lead (preparing) shippard will accomplish the actual Corporate Issue and include the NAVSEA Implementing letter with its issue of UIPIs. The NAVSEA designated Technical Warrant holder will be included on the corporate distribution issued by the lead shippard.

- Training Plans. Standardized training plan requirements will be developed, when tasked by NAVSEA, by the preparing (lead) shipyard's Code 900 (Production Resource Dept), or other primary resource code if applicable (i.e., Welding Engineering, Quality Assurance Dept., etc). If NAVSEA does not task the preparation of a Corporate training plan, each shipyard will prepare and use a local training program based on the Corporate UIPI. This is to be accomplished in consultation with the designated Technical Point of Contact (TPOC) of that specific UIPI. If the process requires standardized training materials and qualification tracking, a set of training competencies will be developed for the UIPI. The intent is to provide a single standard among shipyards of the essential Trade Skill Designator (TSD) competencies for the specific process. Shipyards may alter the periodicity of the training and testing to maintain proficiency given their workload. Deficiencies in the training program should be identified and corrected corporately.
- UIPIs that require a formalized training plan, in accordance with the corporate UIPI. Some UIPIs principally apply to specific industrial, maintenance, and administrative processes that require some additional specialized training trade and/or skill knowledge to accomplish the corporate "best practice". All mechanics (and/or other designated skill based occupations) that are required to perform work to these types of UIPIs must first successfully complete formal training before being assigned work requiring the use of UIPI. Changes and revisions to these types of UIPIs require review at each shipyard to assess these changes/revisions and determine if additional training or re-training is required. This can be accomplished locally, but should be documented. When a corporate training plan, for use at all shipyards, is not tasked and applicable, each shipyard will review each UIPI, and its subsequent changes and/or revisions, to ensure that its shipyard's local training and specific process/method training is in compliance with the applicable UIPI. Many UIPIs often are the NAVSEA detailed higher-tier specification.
- (2) <u>UIPIs that are corporately issued as "stand-alone" instructions</u>. The Resilient Mount Inspection & Isolation

- (DIM), Submarines (UIPI 0730-902) is an example of a UIPI corporately issued as stand-alone instruction. For these types of UIPIs, reading, review and familiarization by trained engineers, quality assurance inspectors, and mechanics prior to actual use should be sufficient, with the appropriate supervisory oversite. Copies of these types of UIPIs can and should be made available at a ship's project center, so that the UIPI can be readily available for reference and refresher reviews by those assigned to use these types of UIPIs. All skills types involved should review their specific technical work task and the requirements of their job assignments to ensure they have adequate knowledge of the process or method prescribed.
- f. Supplements. The implementing shipyard may modify the UIPI for use by providing supplemental information that will be clearly annotated as a supplement. The supplemental information must not change or deviate from the approved process, procedure or technical criteria described in the UIPI. It should only add information pertaining specifically to the organization of the implementing shipyard. The information must not conflict or compromise any technical requirements or the best practice prescribed. All UIPI Supplements must be forwarded to the SEA 04Y/05Y for review of each shipyard's UIPI Supplement within four weeks after issue by the implementing shipyard. SEA 04Y/05Y will review all shipyards Supplements to ensure satisfactory conformance with the corporately issued UIPI. These are designated "Corporate Applicability Reviews".

The principle examples of Shipyard Supplemental information that may be needed are - (1) Local state and regional OSHE requirements could vary from one shipyard to another, even when there is an OSHE section in each applicable UIPI with the known corporate-wide requirements; and (2) there may be some minor organizational differences between shipyards that could make the use of a supplement less cumbersome at that specific shipyard.

- g. <u>IPI/UIPI Originator</u>. The individual and organization that is assigned responsibility for preparing and thereafter maintaining an IPI or UIPI.
- h. <u>Technical Point of Contact (TPOC)</u>. The Shipyard and NAVSEA Code that is assigned responsibility for the technical requirements/information provided in the IPI or UIPI. An individual can also be designated the IPI/UIPI Originator with the understanding the parent technical code assigned is the designated permanent TPOC.

- i. <u>Cognizant Technical Code</u>. The shipyard organization that has been assigned technical lead for the preparing shipyard, for a process, component, or system.
- j. <u>Lead Shipyard</u>. The Naval Shipyard designated by NAVSEA as being responsible for originating, preparing, obtaining all necessary concurrences, and maintaining an IPI/UIPI current.
- k. <u>IPI/UIPI Coordinator</u>. The organization and individual, appointed by Engineering and Planning Manager (Code 200), responsible for the effective implementation and control of that shipyard's Industrial Process Control System. For dual use UIPIs, a Nuclear Engineering and Planning Department UIPI coordinator will also be designated.
- l. <u>Industrial Process Control System</u>. An engineering based system to control and manage industrial processes and the associated IPIs/UIPIs, as defined by this instruction.
- m. <u>Higher Order Document</u>. Technical and other types of NAVSEA safety and technical specifications, etc., take precedence over local shipyard documents. NAVSEA Tech Manuals, Instructions, Military Specifications, and Submarine Maintenance Standards are examples of higher order technical documents.
- n. Implementation Plan. An implementation plan details the steps necessary to locally implement a UIPI. At a minimum, the implementation plan will address when training will be provided, what capital equipment/special tooling/facility changes are necessary, and the effective date of implementation and/or which ship availability shall initially utilize the UIPI. Each shipyards' implementation Plan of Action must be forwarded to SEA 04Y/05Y within 30 days of the NAVSEA Corporate issue (SEA 04Y/05Y within 30 days of the NAVSEA Corporate issue (SEA 04Y/05Y minumenting letter).
- o. NAVSEA UIPI Status Reports. These status reports will be issued at least quarterly by the SEA 04 organization. A listing of supplements forwarded to NAVSEA and those supplements that have been reviewed and accepted by the NAVSEA Technical Warrant holder, will also be listed. Interim status reports should be issued when there are on-going efforts by NAVSEA and the shipyards improve preparation, corporate issue, and implementation actions.

p. NAVSEA Technical Warrant Holder (SEA 04Y/05Y). For the purposes of this instruction, the NAVSEA Technical Warrant Holder (SEA 04Y/05Y) is the NAVSEA code designated by SEA 05 and SEA 00 as the NAVSEA technical authority for these shipyard maintenance and repair processes. Responsibilities are delineated in paragraph 7.a.

5. Background/Discussion

- a. NAVSEA established the Industrial Process Control System to assure that all technically complex processes are documented, especially technically difficult production processes, which have been determined to require standardization to increase first-time quality and best practice. UIPIs are intended to be performed in the same manner at all Naval Shipyards and designated ship maintenance activities, and should produce the same quality product and standard technically correct results. This set of processes can be reviewed, modified, and improved. The assigned lead (preparing) shipyard is responsible for these reviews which update and upgrade these processes.
- b. IPIs and UIPIs are classified by the lead shipyard (with NAVSEA concurrence), in one of the following four categories:
 - Type A: Industrial processes that need to be specifically referenced and included with the Technical Work Document (TWD) (e.g., TGI, E-Spec, etc.). These types of UIPIs provide all the necessary technical content and required data recording and collection sheets and need to be included with the invoking parent work document that authorizes, accomplishes, and certifies work.
 - Type B: Standing industrial processes which a TSD qualified journeyman mechanic is expected to know and perform. Type B instructions are cited in the general requirement section of the TWD, so that the Production Supervisors can assign mechanics with those qualifications to perform work invoking these UIPIs. The TWDs will invoke and use data collection forms contained in the referenced UIPI.
 - Type C: Standing industrial processes which a TSD qualified journeyman mechanic is expected to know and perform. Type C instructions are not required to be cited in the TWD, since they should be part of any journeyman mechanics general knowledge and training.

- Type D: Instructions which cover industrial processes, quality assurance, safety considerations, and environmental requirements that are related to operation and maintenance of an individual shipyard's owned/leased equipment, and are not specified in the TWD for shipboard or related shop work.
- c. The complexity or criticality of an industrial process determines the appropriate level of management control, level of detail, and frequency of periodic review. Factors to consider include, but are not limited to:
- (1) Certain systems/components are mission essential or are vital to Ship's Force safety and health. Consequently, industrial processes performed on these systems/components require additional control.
- environmental, safety, and/or health hazards. This is a priority factor and a major consideration for frequent periodic review. UIPIs that use the NAVSEA specifications and higher order technical instructions as the basis of the process instruction must also be reviewed when these specifications are revised to determine their applicability to the existing UIPI that has been issued to the lead shipyard. The lead (preparing) shipyard is responsible for the action to prepare changes for UIPIs to accommodate NAVSEA technical specifications changes.
- (3) The required skills/qualifications vary considerably among industrial processes. Some require journeyman mechanic skills with specialized formal training and periodic certification, other tasks could be considered those of common skill for a qualified journeyman mechanic and not require specific qualifications.
- (4) Historic failure rates and the potential impact of each failure on the Industrial Process and the mechanics performing the process.
- (5) Some processes require special controls to achieve the desired technical results.
- (6) Industrial processes vary from limited procedures with one or two steps accomplished by a single mechanic, to complex processes requiring close coordination between two or more trades.

- (7) When an industrial process involves use of new technologies or processes, where prior guidance and experience are limited, supervisory control must be greater.
- d. The management control system for industrial processes, and the associated development of IPIs/UIPIs, must be closely integrated and aligned with programs and projects aimed at process improvement so that the improved processes resulting from these initiatives are implemented and institutionalized. These process improvement programs include Cumbersome Work Practices (CWP), Engineering for Reduced Maintenance (ERM), Manufacturing Technology/Repair Technology (MANTECH/REPTECH), Lean, benchmarking and knowledge sharing, and corporate best practice and standardization initiatives.

6. <u>Action</u> - Shipyards

- a. The Chief Engineer at each shipyard is responsible for:
- (1) Managing and administering the Industrial Process Control System and all associated actions.
- (2) Assigning, reviewing, and approving IPIs and UIPIs and subsequent revisions/changes, urgent UIPI changes, and Supplements.
- (3) Ensuring all the lead shipyard approvals and follow shipyard concurrences have been obtained and retained for record purposes as lead (preparing) shipyard for a UIPI. All Shipyards' Code 240s, Code 2300s, Code 106s (for the OSHE and Safety section when one is included), and other shipyard organizations principally involved, concurrences must be obtained. The NEPD signature for those UIPIs that aren't designated as dual nuclear and non-nuclear use will be obtained to ensure the non-nuclear process has no adverse affects on the nuclear program and processes and will support system integration during testing and activation.
- (4) Ensuring the assigned IPIs and UIPIs developed are sufficiently descriptive and detailed, so that a technically correct, best practice process is established in a costeffective manner, and that these instructions meet the NAVSEA technical and administrative requirements.
- (5) Determining when NAVSEA technical review and/or concurrence is necessary. Ensure all UIPIs and all subsequent changes have the necessary NAVSEA reviews and concurrences prior

to corporately issuing, including changes and revisions. SEA 04Y/05Y will accomplish/coordinate this action.

- (6) Assuring the periodic review cycle for each UIPI is in accordance with the requirements of this instruction.
- (7) Designating Type A, B, C or D for IPIs and UIPIs. For UIPIs that require NAVSEA concurrence, obtain SEA 04Y/05Y concurrence for the designation.
- (8) Incorporating the Industrial Process Control System into the engineering and planning function. The development of Technical Work Documents (TWDs) shall take into consideration all applicable IPIs/UIPIs. Corporately issued UIPIs must be invoked as appropriate by classification Type A, B, or C.
- (9) Ensuring that the process is in accordance with current engineering applications and practices; that special equipment or facilities required are available to the performing shop(s). If any special equipment/facilities are required, initiate action to obtain this equipment and notify SEA 04Y/05Y, 04XB and 04XP of the action taken.
- (10) Assigning development of an implementation plan after corporate issue of a UIPI. After corporate issue, if a shipyard supplement isn't considered required, forward a statement to SEA 04Y/05Y invoking the Corporate UIPI as issued, at that shipyard.

b. The Shipyard's IPI/UIPI Coordinator is responsible for:

- (1) Providing the administrative support for the Industrial Process Control System within the shipyard, as detailed in enclosure (1). This includes:
- (a) Issuing IPI/UIPI numbers and maintaining an IPI/UIPI number index.
- (b) Corporately issuing IPIs/UIPIs, including the NAVSEA implementing letter for UIPIs and issuing IPIs/UIPIs locally per enclosure (1). This includes changes, revisions, cancellations, and supplements approved for incorporation into the IPI/UIPI.
- (c) Maintaining a history file for all IPIs/UIPIs implemented at their shipyard. History files shall contain

records of all original issues, changes, revisions, cancellations, and supplements.

- (d) Developing and administering a periodic review program for all IPIs/UIPIs implemented at their shipyard.
- (e) Maintaining an index of all IPIs and UIPIs approved and issued for use at the applicable shipyard.
 - (2) Assigning the appropriate TPOC or originating codes for action on or relating to IPIs/UIPIs.
- (3) Reporting directly to the Chief Engineer concerning obstacles with obtaining local and other shipyards' technical input/concurrence. Include specifics for the UIPI in the shipyards bi-weekly status report to SEA 04Y/05Y.
- (4) Reviewing and forwarding, to a preparing (lead) shipyard, their shipyard's comments on UIPIs prepared by these other shipyards, using requirements of enclosure (1).
- (5) Forwarding requests for UIPI urgent changes for approval. Receiving approved urgent changes, and forwarding them to the TPOC or cognizant technical code for implementation. Ensure any urgent changes for UIPIs are also forwarded to NAVSEA's Technical Warrant Holder (SEA 04Y/05Y) for the UIPI processes/methods.
- (6) Receiving proposed or approved UIPI cancellation notices and requests for revisions/changes originating from other activities, and forwarding them to the TPOC or cognizant technical code and designating review shops/codes, as necessary.
- (7) Reviewing local supplemental changes prepared by the TPOC or cognizant technical code to implement approved UIPIs from other shipyards.
- (8) Nuclear Engineering and Planning Department concurrence must be obtained for all supplements that are designated dual-use (nuclear and non-nuclear application).
- (9) Ensure that the shipyard's supplement and any subsequent change to UIPI supplements are forwarded within four weeks, of that shipyard's issue, to SEA 04Y/05Y, with a copy to SEA 04XB and 04XP. Submit a report, bi-weekly detailing the status of UIPIs. This report will include:

- (a) Status of the development of assigned UIPIs with expected completion dates for submission of the draft UIPI for review by SEA 04Y/05Y, issue for final shippard review, follow shippard review to completion, and forwarding for corporate concurrence. This status will also include obstacles in obtaining technical input or concurrence from local or other shippards.
- (b) Implementation plans for corporately issued UIPIs and when the UIPI has been implemented.
- (c) Review status of other shipyard developed UIPIs.

c. IPI/UIPI Originators are responsible for:

- (1) Researching and integrating all requirements into the IPI/UIPI to establish the best industrial process to achieve the desired technical outcome in the most effective, efficient, safe, and environmentally sound manner.
- (2) Incorporating the best corporate practices available from such sources as NAVSEA, other shipyards, SUBMEPP, SHAPEC, etc., and incorporating latest Cumbersome Work Practice (CWP), Engineering for Reduced Maintenance (ERM), Best Management Practice (BMP) Items, and Lessons Learned.
- (3) Monitoring the implemented use of the IPI/UIPI to assure the best process is in use and identified in the IPI/UIPI.
- (4) Obtaining IPI/UIPI numbers from the IPI/UIPI Coordinator.
- (5) Ensuring that the format of the IPI/UIPI is correct and in accordance with enclosure (1), that all sections are included and correctly presented, and that all shipyards, shops, and codes impacted by the instruction are given the opportunity to provide written comments prior to issue.
- (6) Resolving conflicts and incorporating comments received from NAVSEA, shipyards, shops, or codes.
- (7) Returning the final IPI/UIPI with concurrence and/or approval signatures to the IPI/UIPI Coordinator for issue.

- (8) Identifying the competencies required for personnel qualified to conduct work defined within the UIPI, as identified within enclosure (1).
- (9) Ensuring that all instructions issued comply with the NAVSEA technical requirements/specifications.
- d. <u>IPI/UIPI Technical Point of Contact (TPOC) or Cognizant Technical Code</u> is responsible for:
- (1) Reviewing assigned IPS/UIPIs for technical content.
- (2) Obtaining the shipyard's technical cognizant codes concurrences. Report difficulties with obtaining timely and technically accurate input to the Chief Engineer as well as the shipyard's UIPI Coordinator. Obtaining final signatures; including any required NAVSEA signatures.
- (3) Establishing the periodic review cycle for each instruction. Normally all UIPIs must be reviewed every three (3) years to ensure they are up-to-date with the current NAVSEA technical specifications and the "best-practice".
- (4) Establishing the UIPI quality assurance requirements needed to achieve a clear, well-written and therefore understandable UIPI.
- (5) Developing an implementation plan detailing the steps necessary to locally implement a UIPI. For UIPIs, the shipyards' implementation plan shall be forwarded to SEA 04Y/05Y within 30 days after corporate issue of the UIPI, by NAVSEA Implementation letter. If local/state OSHE requirements at an individual shipyard prevent implementation, notify NAVSEA 04XB, 04XP, and 04R, as well as SEA 04Y/05Y. Each shipyard's UIPI Supplement shall be issued five (5) months after Corporate Issue by the preparing (lead) shipyard, for initial UIPI issue and/or a major revision to a previously issued UIPI.
- (6) Developing supplemental information for all UIPIs as necessary and submitting to the IPI/UIPI Coordinator for processing.
- (7) Determining requirements for implementing other Shipyards' UIPIs. This may include preparing supplemental information.

- (8) Analyzing UIPI feedback information, determining appropriate action, and providing response to the shops/codes and/or other shipyards/repair facilities. This action may include a formal request for change, revision, and/or integrating additional supplemental information to the shop/codes.
- e. Radiological Control Office (Code 105) is responsible for review and approval of all radiological control requirements and procedures.
- f. Occupational Safety, Health and Environmental Office (Code 106) is responsible for:
- (1) Reviewing and approving all safety and health requirements and precautions including medical/health qualifications. Ensuring that process documentation contains sufficient occupational safety and health procedures and controls necessary for personnel safety.
- (2) Reviewing and approving pollution prevention, recovery material disposal, environmental compliance, and other environmental requirements and considerations. Ensuring that process documentation is accurate and complete in these areas.
- (3) For reviewing and concurring with the Section on OSHE and Safety, when it is applicable. (Some UIPIs/IPIs do not require this Section).
- g. Quality Assurance Office (Code 130) is responsible for review and approval of all quality assurance requirements. Quality Assurance ensures process documentation provides the desired product. This ensures the feedback requirements and procedures for monitoring process acceptability are adequate and provide requisite quality control.
- h. <u>Production Resources Department (Code 900) Shop Superintendents</u> are responsible for:
- (1) Ensuring that personnel are knowledgeable, skilled, and trained (as applicable) in the IPI/UIPI requirements for the specific job to which they are assigned.
- (2) Ensuring that training classes required by the IPI/UIPI exist. Work with the industrial process instruction TPOC and the training organization to develop a training plan

when an $\ensuremath{\mathsf{IPI}}/\ensuremath{\mathsf{UIPI}}$ and/or a corporate $\ensuremath{\mathsf{UIPI}}$ designates specific training requirements.

- (3) Ensuring that designated shops have the capacity and capability to accomplish the industrial process and achieve the technical results specified by the method and requirements of the IPI/UIPI.
- (4) Monitoring the use of the specified IPIs/UIPIs to accomplish the desired results/product in a safe, effective, and efficient manner.
- (5) Ensuring approved IPIs/UIPIs, including changes, revisions and supplements, are available for the shop mechanic's use.
- (6) Providing access to a current file of applicable IPIs/UIPIs to shop personnel.
- (7) Ensuring that process problems or improvements are identified and forwarded to the TPOC or cognizant technical code.
 - (8) Providing approval signature on all UIPIs.
- i. Nuclear Engineering and Planning Department (NEPD) $\underline{\text{Codes}}$ are responsible for:
- (1) Reviewing and approving all technical and testing requirements used for nuclear interface work and dual-use application, including new UIPIs originated by other shipyards. NEPD is also responsible for assuring the following factors have been considered and are implemented in IPIs/UIPIs used for nuclear interface work as applicable:
- (a) The signature cover sheet of UIPIs indicates the degree of review necessary for nuclear interface work and/or use for nuclear work.
- (b) Requirements unique to nuclear interface work will be specified in a manner that assures compliance with nuclear technical and administrative requirements, in accordance with nuclear cognizant specifications, i.e., those contained in the Naval Nuclear Quality Control Manual for Shipyards, NAVSEA 0989-062-4000 and MIL-STD-767 (Cleanliness Requirements), etc.

- (2) Reviewing all newly developed IPIs/UIPIs for information that may affect nuclear or radiological control requirements/procedures. In these cases, Code 2300 and/or Code 105 shall ensure that special requirements/procedures are included in the instruction which will facilitate safe, efficient, and effective accomplishment of the process without adverse interface/impact on or from nuclear processes. If there is nothing that would impact nuclear or radiological control procedures, an "N/A" will be shown in the designated line for Code 2300/Code 105 approval signatures. Codes 2300 and 105 will not be required to review and approve subsequent drafts or revisions unless new material with a potential effect on nuclear or radiological control procedures is introduced. If in doubt, the TPOC or cognizant technical code should verify with Code 2300 and/or Code 105.
- (3) During preparation for corporate issue of UIPIs, the following category designations are assigned for nuclear review/concurrence.
- (a) N/A Nuclear review required by lead (preparing) shipyard Code 2300 to validate no nuclear application and that it doesn't adversely affect nuclear work.
- (b) "N"-CNR UIPI that is designated for both dual nuclear/non-nuclear use. Review and concurrence by all Code 2300s is required of these types of UIPIs. SEA 08X concurrence is required during the NAVSEA review.

7. Action - NAVSEA 04

- a. The NAVSEA designated Technical Warrant Holder, (SEA 04Y/05Y), is responsible for:
- (1) Maintaining this instruction and coordinating guidance and actions for UIPI development and implementation.
- (2) Reviewing and approving draft UIPIs to ensure the process proposed is acceptable and achieves the objective of a totally corporate process that results in the "best practice" to be standardized at all the shipyards.
- (3) Reviewing and approving initial issue, revisions, and changes of the "Corporate UIPIs". Obtain, review and adjudicate resolution of any NAVSEA issue with these UIPIs; also provide the NSROs these types of UIPIs for review and input.

- (4) Adjudicating unresolved comments related to new, changed, revised, or cancelled UIPIs.
- (5) Obtaining, reviewing and adjudicating resolution of any NAVSEA issues with the lead (preparing) shipyard.
- (6) Providing and designating, in concert with SEA 08X, the UIPIs and the lead (preparing shipyards) assigned as dual nuclear and non-nuclear use.

b. NAVSEA 04R is responsible for:

- (1) Reviewing of all dual-use nuclear/non-nuclear UIPIs that contain Sections for OHSE/Safety requirements. It is recognized that each shipyard is responsible to review and invoke local requirements, including those that are State and other local regulatory agency requirements.
- (2) Providing Code 106 signatory concurrence on the cover sheet of all UIPIs with Sections addressing OSHE/Safety, not just those that are designated as dual-use.
- (3) Reviewing and concurring with all UIPIs that are issued to standardize an OSHE/Safety "best practice" example, High Build Epoxy Painting of Submarine Ballast Tanks and Shipboard Hot Work Precautions.
- 8. Action Other NAVSEA Codes, Shippard Codes and Shops. Support the IPI/UIPI system by originating instructions or providing technical information to instruction TPOC or cognizant technical code, as required. Provide review, input and concurrence for designated UIPIs.

Denuty Command

Deputy Commander

Logistics, Maintenance and

Industrial Operations

Distribution:

Norfolk Naval Shipyard (Code 100, 130, 200, 220, 240, 300, 900, 930, 2300, 2309)

Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility (Code 100, 130, 200, 240, 244, 300, 900, 2300)

Portsmouth Naval Shipyard (Code 100, 130, 200, 240, 248, 280, 300, 900, 2300, 2309)

Puget Sound Naval Shipyard and Intermediate Maintenance Facility (Code 100, 130, 200, 220, 240, 241, 300, 900, 2300, 2309) SUBMEPP (1801, 1832)

Portsmouth, NH 688 SHAPEC

SUPSHIP Newport News (Code 200, 240, 300)

SUPSHIP Groton (Code 200, 240, 300)

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COMNAVSEASYSCOM (SEA 00, 04, 04X, 04XB, 04XP, 04XQ, 04R, 04RP, 05, 05CT, 07, 07B, 07T, 08X, PMS 392, PMS 312)

NSRO (Norfolk Naval Shipyard, Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility, Portsmouth Naval Shipyard, Puget Sound Naval Shipyard and Intermediate Maintenance Facility)

NRRO (Norfolk Naval Shipyard, Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility, Portsmouth Naval Shipyard, Puget Sound Naval Shipyard and Intermediate Maintenance Facility, Newport News, Groton)

General Dynamics, Electric Boat Division (F. Haberlandt, R. Geschrei, K. Kunka)

Northrop Grumman Newport News (W. Sharp, R. Bartschi, B. Clark) Oceaneering International/CLT (D. Chapman)

PREPARATION AND CHANGE CONTROL OF IPIs/UIPIs

- 1. <u>Numbering</u>. All IPIs/UIPIs shall be identified with the numbering structure described in this instruction. The UIPI numbers will be assigned by the originating shipyard and will be applicable at all shipyards. Originating IPI/UIPI Coordinators shall issue IPI/UIPI numbers and maintain a log of IPI/UIPI numbers issued. This number shall consist of digits as follows:
 - a. Four-digit ship's system identification number, determined as follows:
- (1) The ship's system identification number for surface ships and submarines shall be the first four digits of the Expanded Ship Work Breakdown Structure (ESWBS) number associated with the ship's system to which the IPI/UIPI applies. ESWBS are defined in NAVSEA S9040-AA-IDX-010/SWBS 5d, Volume I.
 - (2) Federal Supply Classification identifier
 - (3) Shop (i.e., 0038)
- (4) If none of the above numbering schemes is applicable, then use four zeros (0000) as the ship's system identification number.
- b. A ship's system identification number, assigned to an IPI/UIPI from a current ESWBS manual, will remain regardless of subsequent changes to the ESWBS manual.
 - c. <u>Serial number</u>. This number shall consist of the following, in the order presented:
 - (1) Single-digit code which identifies the originating activity:
 - 0. Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility
 - 1. Portsmouth Naval Shipyard
 - 4. Norfolk Naval Shipyard
 - 9. Puget Sound Naval Shipyard and Intermediate

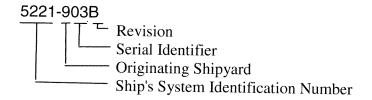
Maintenance Facility

N. NAVSEA Technical Warrant for Industrial/Maintenance Processes (SEA 04Y/05Y Tech Warrant)

Note: Numbers 2, 3, 5, 6, 7, and 8 were used for former shipyards and NAVSEA.

- (2) <u>Two-digit serial identifier from 01 through 99</u>: Each originating shipyard must make certain that no serial identifier applies to more than one IPI/UIPI.
- (3) <u>Revision Identifier</u>. Each revision shall be identified with a single uppercase letter from A through Z, used consecutively. Revision identifier letters I and O are not to be used. Revisions J and P will indicate, in the reason for revision, that the preceding identifier was not used.

d. An example of the IPI/UIPI numbering structure:



2. <u>Content</u>. Each IPI/UIPI shall, at a minimum, contain the following sections and material. Optional material is also discussed herein but is defined as such. It is recognized that each IPI/UIPI is a unique document. Inclusion of table of contents, definitions, general notes, or other supplemental sections/material that will enhance the usability of the instruction is recommended. Process flow charts will be mandatory in UIPIs and are highly recommended in IPIs. Each IPI/UIPI shall use gender neutral language.

NOTE: All Exhibits contained within this Enclosure are in the order that they are mentioned.

- a. <u>Cover Sheet</u>. A sample IPI cover sheet is provided, see Exhibit 1. A sample UIPI cover sheet is also provided, see Exhibit 2. Cover sheets shall present the following information:
- (1) <u>Title</u>. Arrange the title so that the system or hardware to which the IPI/UIPI applies appears first and the process or action appears second. For example: "Shafting, Main Propulsion; Machining of."
 - (2) Number. The IPI/UIPI number assigned by the originating shipyard.
 - (3) Obtain and apply correct classification of UIPIs, i.e., FOUO, NOFORN, etc.
- (4) <u>Cancellations</u>. List the identification and file number of any existing IPIs/UIPIs that the new instruction cancels. If the new instruction does not cancel any existing IPIs/UIPIs, enter the word "NONE." Each shippard must identify local IPIs canceled by UIPIs.
 - (5) <u>Issue date</u>. Enter the date of original issue or most recent revision, as applicable.
- (6) $\underline{\text{Sections}}$. Identifies the sections appearing in IPIs/UIPIs. Inclusion of all sections is mandatory.
 - (7) Type. Indicate process type A, B, C, or D. See paragraph 5b of basic instruction.
- (8) <u>Ship Class Code</u>. The classes or types of ships for which the IPI/UIPI is to be used. The following alphabetic codes are listed for the various classes and types of ships.

A. ALL SHIPS B. ALL SURFACE SHIPS C. ALL SUBMARINES D. ALL CV/CVN	G. ALL DDG H. ALL DD M. ALL SSBN N. ALL SSN	R. BB61 S. PHM 1 T. MCM/MCH X. OTHER
E. ALL CG F. ALL FF/FFG	P. AMPHIBIOUS Q. AUXILARY	A. OTHER

- (9) <u>Ship System</u>. The name of the ship's system to which the IPI/UIPI applies. This is the system for which the ESWBS number in the instruction number is assigned.
- (10) <u>Trade Skill Designator (TSD)</u>. Enter the appropriate NAVSEA approved TSD of the lead trade skill involved in the industrial process.
- (11) <u>Key Shop</u>. Enter the key production resource shop involved in the process. For all IPIs, including UIPIs, shipyards may tailor this to their individual requirements.
- (12) <u>Assist Shops/Codes</u>. Enter the assist production resource shops and/or support codes involved in the process.
 - (13) Originator. Enter the following information for the Originator:
 - (a) Shipyard. Enter originating shipyard.
 - (b) <u>Code</u>. Enter originating branch code.
 - (c) Prepared By. Enter Originator's name.
- (d) \underline{Phone} . Enter the Originator's commercial phone number and Defense Switched Network (DSN) prefix.
 - (e) $\underline{\text{E-mail}}$. Enter the Originator's e-mail address.
- (14) <u>Distribution</u>. All UIPIs will be distributed to all Naval Shipyards (Code 200/240), all Ship Repair Facilities, all Supervisors of Shipbuilding, Conversion and Repair (Code 200 and Code 240), SEA 04Y/05Y, 04XB, 04XP, 04R, and 04RP, the assigned Ship Availability Planning and Engineering Center (SHAPEC), Northrop Grumman Newport News, General Dynamics Electric Boat, and the Integrated Planning Activity (IPA and SUBMEPP) for each applicable ship class. Additional distribution will include all affected shops/codes, applicable signature codes, and applicable Engineering and Planning codes. Additional distribution addressees may be designated/identified as "Action" and/or "Info."
- (15) <u>Approvals</u>. For IPIs/UIPIs, enter the originator/responsible shipyard code in the appropriate block. If the UIPI is originated by a shipyard, the preparing (lead) shipyard's Chief Engineer, and 2300 will approve on the cover sheet. Code 106 signature is also required for IPIs/UIPIs that have OSHE/Safety requirements. If the UIPI is originated by NAVSEA, the NAVSEA Technical Warrant holder (SEA 04Y/05Y) for these UIPI processes, will provide the approval signature on the cover sheet.

- (a) Where one or more of the required signature codes have no cognizance over the process or instruction, "N/A" may be entered in the appropriate blanks; however, individual concurrence sign-off as "N/A" shall be required on the original issue of the instruction. "N/A" concurrence sign-offs on subsequent revisions will be at the discretion of the Originator and the IPI/UIPI Coordinator based on the scope and impact of the revision.
- (b) Originating shipyards have the authority to add additional approval signature codes/shops on the instruction cover sheet, as required, or deemed appropriate (e.g., Trade Shop Superintendent, Ship Test Division). Signatories have <u>full responsibility and accountability</u> for their areas of cognizance. Where additional signature shops/codes are added by the originating shipyard, the Originator shall ensure that the added shops'/codes' responsibility is defined and known.
- (c) Signatures on IPIs/UIPIs may be expedited by sending simultaneous copies to the individual signature codes. Their names (and/or "N/A") and dates will then be typed on the IPI/UIPI cover sheet, with a note indicating that original approval signatures are on file with the IPI history file. Original signatures of department signatories will be kept on file at the lead shipyard. For Final/Corporate Issue, all names and dates can be typed on the cover sheet, for electronic and hard copy publication.
- (d) <u>Signatures on UIPIs</u>. The NAVSEA designated Chief Engineer, per reference (c), must approve UIPIs. A copy of the original signatures and dates from the lead shipyard will be faxed to the SEA 04Y/05Y for verification of all concurrences and approvals on the draft and/or final copy of the UIPI.

b. References

- (1) List reference documents in the sequence in which the first mention of them appears in the text.
- (2) Provide complete identification, including document number, title, and effective date of references.
- (3) If there is an invoking instruction at the individual shippard for a higher order document, refer to it, not the higher order document.
- (4) The intent of IPIs/UIPIs is to minimize reference documents required by the mechanic. References shall be used only if it is impractical to incorporate the information required in the body of the IPI/UIPI (e.g., engineering drawings).
- (5) References shall be to the specific subsections of documents that are applicable to the process.

- (6) This instruction shall <u>not</u> be included in the IPI/UIPI reference list References that are not necessarily required on the job site with the work package, for a trained and qualified worker to accomplish the process, but are only referenced for general background use shall be identified as such.
 - (8) Local references will only be used in supplements issued to locally implemented corporate UIPIs.

c. Enclosures, Tables, and Illustrations

- (1) Enclosures and tables, which are included as applicable, may appear in any logical and readable format. Line quality is important when one expects this information to be read and used. Use illustrations to the maximum extent practical to help the mechanic understand the technical direction. Use of charts, portions of references, job aids, etc., where they will assist clear use and presentation of materials, is highly recommended.
- (2) List enclosures and tables in the order in which the first mention of them appears in the text. Give a complete identification of enclosures.
 - (3) Enter the instruction number on all enclosures and tables.
- (4) The exhibits listed in this instruction are provided to be used as applicable. The following exhibits are attached at the end of this enclosure:

Exhibit 1 - Industrial Process Instruction (cover sheet)

Exhibit 2 - Uniform Industrial Process Instruction (cover sheet)

Exhibit 3 - IPI/UIPI Feedback Record

Exhibit 4 - Industrial Process Instruction Workflow

Exhibit 5 - Uniform Industrial Process Instruction Workflow

Exhibit 6 - Requirements Tree (example)

Exhibit 7 - Guidelines for Building Requirements Trees for IPI/UIPIs

Exhibit 8 - IPI/UIPI Change Notice Transmittal

Exhibit 9 - UIPI Supplement Sheet
Exhibit 10 - Organized Comment List
Exhibit 11 - IPI/UIPI Revision Sheet
Exhibit 12 - IPI/UIPI Cancellation Notice

- d. <u>Purpose</u>. This paragraph provides a brief statement about why the document has been developed or revised and/or summarizes the function of the IPI/UIPI.
- e. <u>Scope</u>. This paragraph describes the extent of coverage of the instruction and its specific limitations. The following information should be included:
- (1) Identification of the instruction as either a Uniform Industrial Process Instruction (UIPI) or an Industrial Process Instruction (IPI).

- (2) The type level (i.e., Type A, Type B, Type C, Type D) assigned to the instruction, and a brief description of the requirements of the assigned type.
- (3) When necessary, the Scope section will include General Notes to provide specific information on applicability of IPI/UIPI to current and future shipyard workload. Identify the advantages and benefits of the process (e.g., where an industrial engineering study or research and development was accomplished, the origin of the technology or cost savings, CWP, etc.).
- (4) As a general rule, these IPIs/UIPIs should not contain classified information/material. However, if the instruction contains classified material, the last sentence of the scope paragraph shall state the exact number of classified pages contained therein. Classified material shall be identified and handled in accordance with established shipyard procedures and requirements.
- f. <u>Section I: Equipment</u>. This section identifies all special tools, apparatus, special utilities, and setup requirements for process accomplishment.
- g. <u>Section II: Material</u>. This section describes materials and supplies essential for process accomplishment. (Note: The Originator must ensure that all materials listed in this section are approved for use.)
- h. <u>Section III: Occupational Safety and Health and Environmental Protection</u>. This section briefly describes special hazards of the process, and the safety and health precautions which the workers must take, and cognizant supervisor must enforce, before, during, and after accomplishing the work to ensure that personnel safety is achieved throughout the process. The section identifies specific related safety, health, and environmental regulatory training identified further in section V of the IPI/UIPI. This section also identifies any hazardous materials anticipated to be used and describes general requirements for handling procedures and steps to follow in case of accidental exposure, ingestion, etc. Lengthy, detailed procedure requirements will be defined in separate paragraphs within Section III. Each shipyard shall augment as needed by ship and job specific work instructions. Brief health/safety warnings, cautions, and handling notes will be inserted at the appropriate location in the Method, Section VI, along with references to details in Section III.
- (1) Medical qualifications will also be addressed in a separate paragraph within the Occupational Safety and Health (OSH) Section of all IPIs/UIPIs. If the process requires employees to meet/obtain special medical/health qualifications, then spell out the requirements. If none, so state.
- (2) Environmental protection/pollution control and hazardous material/waste disposition requirements and procedures shall also be defined in separate paragraphs within this section. Ship specific instructions will be issued by the executing activities. If none apply, so state.

- i. <u>Section IV: Quality Assurance</u>. This section identifies those quality control measures required to ensure process accountability, control, and achievement of the desired technical outcome. The following general requirements information is to be included in this section: inspection and verification points and documentation of inspection results (in-process and final); general acceptance criteria, when practical (when criteria is too cumbersome to include, references to acceptance criteria source documents are acceptable); sampling or testing to verify process adequacy and compliance with technical specifications; special measurement requirements; General Test Specifications (i.e., DDGOS, GSO, URO/MRC, Submarine Maintenance Standards, etc.) and any other documentation and quality control measures required to achieve the desired technical outcome. Ship specific instructions will be issued as the ship's availabilities TGIs/TWDs.
- j. <u>Section V: Training and Skills</u>. This section describes the training, skills, and qualification requirements specific to the IPI/UIPI and consistent with the NAVSEA approved Trade Skills Designators (TSD). The Corporately issued UIPI will be the basis of the shipyard's training plan and training.
- (1) The UIPI preparer shall, in consultation with the applicable Shop process owner and training organization, develop a set of required competencies for the UIPI. These are verb/object statements that describe the knowledge, skills, and abilities to perform the processes specified by the UIPI. The competency listing should NOT include pre-requisite skills and abilities normally possessed by a journeyman mechanic as identified in the core and discretionary skills and qualifications listed for each trade skill, such as blueprint reading, precision measurement, etc. The intent is to provide a single standard among shipyards of the essential competencies for the specified processes, but allow for flexibility among shipyards with methods to attain/meet the standards. The competencies may be satisfied by formal training, on the job training, or other management approved means of verifying worker competence as appropriate. The UIPI will designate when specialized formal training is required.
- (2) In addition, the UIPI preparer shall list any applicable NAVSEA specified training and qualification requirements (such as Steam Plant Cleanliness or SUBSAFE qualification) specific to the UIPI. When formal training plans are required, they shall be identified by title, sponsor, and course number. Each shipyard will invoke its requirement for refresher training, when necessary, to ensure changes and revisions to IPIs/UIPIs are properly implemented.
- (3) The shop supervisor shall ensure that all employees assigned to a given job are properly trained and qualified. Formal training shall be documented in each employee's training record.
- k. <u>Section VI: Method</u>. This section describes the way in which a worker accomplishes the process most efficiently and effectively. It identifies the detailed steps of the process in their proper sequence for accomplishment. The method section must allow quick reading of the IPI/UIPI to eliminate vagueness and pinpoint responsibility. Each step is numbered, beginning with the first action and proceeding sequentially through the last. In those cases where steps or series of steps can be accomplished in parallel, they will be so identified.

(1) The method section shall be set up using a play-script style format as follows:

ACCOUNTABLE <u>STEP # SHOP/CODE or TSD ACTION</u>

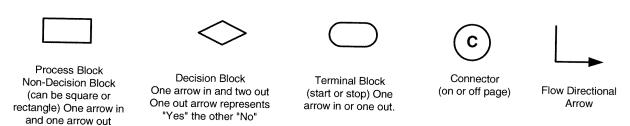
- (2) The Originator or the cognizant technical code, at each Naval Shipyard, will designate which shop or code is responsible and accountable for each step in the method. This decision will be made on an individual Naval Shipyard basis for all IPIs. This decision will be based on the most efficient and effective means to accomplish the method step, with consideration given to shop organization cognizance, training, safety, quality assurance, and support or technical code functional responsibilities. Questions or conflicts regarding the responsible and accountable shop or code for a particular step shall be referred to the Shop Superintendents or Project Managers for resolution. The designated shop or code shall be entered in the Accountable Shop/Code column of the Method Section and shall be subject to periodic review and revision by the Production Resources Department (Code 900), when applicable.
- (3) Specific safety, health, environmental protection, and quality assurance requirements shall be integrated into this section at the point in the procedure where they are applicable.
- l. <u>Section VII: Feedback</u>. Where possible, IPIs/UIPIs shall contain in-process procedures for monitoring process effectiveness and acceptability. This may include standard statistical techniques or other suitable methods to identify the need to effect process improvements. IPIs/UIPIs shall contain a IPI/UIPI Feedback Record, see Exhibit 3. All involved shops/codes will identify recommended process improvements on the IPI/UIPI Feedback Record and forward these to the Originator.
- (1) As a minimum, in-process controls and feedback procedures should enable the Originator and other cognizant technical authorities to determine the following in a timely manner: process productivity impediments/improvements, process failure rate, causes of process problems/failures, and corrective/preventive actions required.
- (2) When Feedback Records are received, the Originator will review the feedback information, determine the necessary action, and provide a response to the requesting shop/code.

Note: The IPI/UIPI feedback system is intended to monitor the <u>process</u> effectiveness. Specific problems in applying the process to a specific ship or ship's components should be forwarded to the originating shipyard department for resolution.

m. <u>Cross-Functional Flowchart</u>. UIPIs shall contain a process flowchart. This flowchart will be of sufficient line quality and font size to allow mechanic reading and copying. The flowchart provides a tool for process review, improvement, and elimination of cumbersome work practices. The recommended flowchart is a cross-functional flowchart. The flowchart should establish a step-by-step graphical presentation of the process and provide a quick method

to identify the actions and responsibilities of individual shops and codes. An IPI/UIPI could require more than one cross-functional flowchart. If there is a change in the instruction, it must be changed in the flowchart. See Exhibit 4 (two pages) for cross-functional flowcharts depicting the IPI workflow, workflow, and Exhibit 5 for the UIPI Workflow. The process flowcharting symbols are described and shown below.

Process Flowcharting Symbols



- n. <u>Notes, Cautions, and Warnings</u>. Short and concise notes, cautions, and warnings may be placed as appropriate in the IPI/UIPI to emphasize important/critical safety or technical information. If it is necessary to insert a warning and a note, or a caution and a note, etc., then warnings shall precede cautions and cautions shall precede notes. Warning and caution statements shall not contain procedure steps or require specific actions to be performed. Notes, cautions, and warnings are defined as follows:
 - (1) Note Used to emphasize important information.
- (2) <u>Caution</u> Used to provide information which, if not followed, may result in harm to personnel or equipment.
- (3) <u>Warning</u> Used to provide information which, if not followed, will result in harm to personnel or equipment.
- o. <u>Requirement Tree</u>. When required for each instruction, a Requirement Tree (R/T), an electronic list, or an equivalent technical requirements tracking technique shall be developed to the corresponding higher order source requirement, covering at a minimum all technical requirements within the instruction. The preferred method is the R/T. See Exhibit 7 for R/T guidance and Exhibit 6 for an example of a R/T.

3. <u>Periodic Review</u>

a. The Originator shall conduct periodic reviews of each IPI/UIPI to ensure that it is current, applicable, and prescribes the safest, most efficient and effective method for accomplishing the industrial process. Originating shipyards shall be responsible for review of developed UIPIs, although all performing shipyards are responsible to provide feedback including recommendations for review to the lead shipyard.

- b. The periodic review cycle will be established by the TPOC or Cognizant Technical Code and approved by the cognizant Chief Engineer. At a minimum, this review should be conducted every three (3) years for UIPIs that have technical content. A five (5) year review cycle is required for all IPIs. A decision for revision and/or change will be based on criticality of the instruction and whether or not the IPI/UIPI is still in compliance with the higher order NAVSEA technical specifications and reflects the current "best practice". Often a revision is required to attain better alignment at all shipyards with current best practices and technical criteria. Factors that should be considered include the following: how much and how often the process is performed, if the process involves high risk evolutions, if the process utilizes hazardous materials, and if the process requires keeping documentation (i.e., Objective Quality Evidence (OQE) records). This review will address all areas and sections of the IPI/UIPI. Shipyards shall develop and maintain a schedule and plan of action for accomplishing instruction periodic reviews. A note specifying the instruction's periodic review cycle shall be added to the cover sheet, see Exhibits 1 and 2.
- c. Reference (a) requires that the Originator observe and discuss the procedure with the users of the instruction. If NEPD concurrence is required, the Originator shall contact NEPD to determine if the nuclear interface requirements are still valid and current.
- d. If a revision or change is necessary to make the instruction current, then the Originator is responsible for issuing the change/revision in accordance with this enclosure.
- e. If the instruction is current and does not require a change or a revision (i.e., the Originator has discussed the existing procedure with the users of the instruction and nothing has changed, and has verified that all references are accurate and up-to-date), then the Originator will notify the IPI/UIPI Coordinator in writing that the instruction is current and the review due date shall be revised accordingly. For Corporately issued UIPIs, SEA 04Y/05Y (NAVSEA's Technical Warrant holder) concurrence is required when determining no change and/or revision is needed.
- f. All IPIs that exceed 5 years since the last review will be reviewed for cancellation to determine if there is a valid need for the instruction. If the IPI is still needed, a formal review will be conducted to ensure that it is current and correct.
- g. SEA 04Y/05Y, 04XB, 04XP, and 04R will be informed (by E-mail) of the results of these reviews and the determination whether or not a revision or change is needed.

4. <u>Changes</u>

a. A change is an interim modification of an instruction made between revisions. It is used for minor changes, urgent situations, and to minimize disruption of the production process. Changes and/or corrections to identified problems will be incorporated into the next IPI/UIPI revision. All affected paragraphs will be identified with a side bar and the change number (e.g., CH-1); and will be assigned by the lead shipyard's UIPI Coordinator. An IPI/UIPI Change Notice Transmittal Sheet, see Exhibit 7, will be prepared by the originator and submitted to the IPI/UIPI Coordinator. It will contain the change concurrence/approval signatures and dates and

will become part of the document. All UIPI changes must have SEA 04Y/05Y concurrence prior to corporate issue. The IPI or UIPI Change Notice Transmittal will provide users with the following information:

- (1) Number and title of the applicable IPI/UIPI.
- (2) Sequential number of the change.
- (3) Actions required by the change.
- (4) Purpose of the change.
- (5) Approval signature.
- (6) Local concurrence signatures (as required).
- (7) UIPI Off-station concurrence dates (UIPIs ONLY)

b. IPIs

- (1) The originator or the shipyard's technical point of contact (TPOC) (i.e., Cognizant Technical Code) is responsible for obtaining comments from applicable shops and codes, adjudicating and incorporating comments. The originator or TPOC is also responsible for obtaining approval signatures from cognizant codes, as required by the nature of the change (except in the case of typographical error corrections and minor format related wording changes).
- (2) Approval/concurrence signatures, from those responsible for the change and those affected by the change, will appear on the IPI/UIPI Change Notice Transmittal Sheet, see 7A. Changes to any IPI that interfaces with nuclear work shall be concurred on by the NEPD.

c. UIPIs

- (1) Requests for changes to UIPIs may come from the lead shipyard, other Naval Maintenance Activities, or NAVSEA. The lead shipyard UIPI Coordinator will receive change requests and forward the request to the shipyard's TPOC for evaluation and implementation. If the change request is approved, the lead shipyard will prepare a change to the existing UIPI. For urgent change requests, see paragraph (2). The originator or TPOC and UIPI Coordinator will determine the time frame for review based on the urgency of the change.
- (2) If the change is urgent due to technical errors, improved techniques or required to support ongoing shipyard work, the requesting shipyard may issue and implement a change as a supplement, see Exhibit 8, with local Engineering and Planning Department authorization. A copy of the urgent supplement will be forwarded to the lead shipyard for review and the basis for development of a formal change or revision.

- (3) The UIPI coordinator will ensure that the TPOC has conducted a review limited to affected local shops/codes. Parallel with the local review process, the UIPI Coordinator will forward the proposed change to the other shipyards' UIPI Coordinators, who will ensure that the local TPOC has conducted a similar review at their shipyard. All reviewers will review the change for adverse impact only. Comments will be forwarded electronically to the lead shipyard's TPOC with copy to the UIPI Coordinator, utilizing the Organized Comments List, see Exhibit 9.
- (4) The lead shipyard (originator or TPOC) will adjudicate comments and record resolutions on the Organized Comments List.
- Change and the Organized Comments List, to the other shipyards' UIPI Coordinators. They will forward the adjudicated UIPI with the Organized Comment List, to the TPOC for final concurrence. The TPOC will concur on the UIPI or contact the lead shipyard's TPOC and resolve any issues. When all the issues have been resolved, the TPOC will advise the UIPI Coordinator that the UIPI change is acceptable for use at their shipyard. The UIPI Coordinator will notify the lead shipyard UIPI Coordinator of their concurrence. The date the concurrence is received from the other shipyards will be entered on the IPI/UIPI Change Notice Transmittal, see exhibit 7. Concurrence signature is required from the lead shipyard's Code 240, and Code 2300 if designated as dual use ("N" CNR)or (nuclear and non-nuclear). If affected, concurrence signatures are required from other shops/codes. The approving official will be the lead shipyard Chief Engineer.
 - (6) All UIPI changes require concurrence from the SEA 04Y/05Y.
 - (7) The UIPI change will be issued to all other shipyards and Naval activities.
 - (8) Each shipyard will locally issue and implement the change.

Note: All changes shall be incorporated into the next revision.

- 5. <u>Revisions</u>. An instruction requiring major changes will be reissued completely, including cover sheet with new signatures, in accordance with the procedures detailed in this section.
- a. A revision identifier assigned by the IPI/UIPI Coordinator shall be added to the document number in accordance with paragraph 1.c(3) of this enclosure.
- b. The Originator shall incorporate approved changes/ modifications as necessary, keeping with the approved format. The Originator shall then send the draft revision out for comments, incorporate comments as applicable, and route the final draft for signatures. The Originator may request assistance from the IPI/UIPI Coordinator.
- c. Major changes in the areas of policy, procedures, responsibility, reporting requirements, or other matters of substance shall be briefly summarized on the Revision Sheet (IPI/UIPI), which becomes part of the IPI/UIPI, see Exhibit 8.

- d. All UIPI revisions/changes require the SEA 04Y/05Y concurrence.
- e. After obtaining approval signature(s) on the cover sheet of the new revision, it shall be distributed and filed by the IPI/UIPI Coordinator. For implementation of UIPIs, see paragraph 9 of this enclosure.
 - f. A revision meets all requirements for a periodic review (see paragraph 3 of this enclosure).

Note: The signatures on UIPIs must be the originals on the final draft master. Signatures on IPIs may be expedited by sending simultaneous copies to the individual signature codes. Their names and dates (or "N/A") will then be typed on the IPI/UIPI cover sheets, with a note indicating that approval signatures are on file with the instruction history file.

- 6. <u>Cancellation of IPIs/UIPIs</u>. To cancel an issued IPI/UIPI, the originator will submit a written request to the IPI/UIPI Coordinator stating the reason or the circumstance for the cancellation. The cognizant shipyard IPI/UIPI Coordinator shall route a copy of the IPI/UIPI to be cancelled and reasons for the proposed cancellation to all applicable Departments; and for a UIPI, to IPI/UIPI Coordinator at other shipyards. Reviewing shops/codes shall forward written concurrence or objections to the IPI/UIPI Coordinator within 30 calendar days. Forward all replies to the cognizant shipyard IPI/UIPI Coordinator. The Originator of the IPI/UIPI must resolve objections to cancellation. If all interested shops/codes concur with the proposed cancellation, then the Originator shall proceed as follows:
- a. An IPI shall be canceled by an IPI/UIPI Cancellation Notice, see Exhibit 11, with approval by the cognizant local Division Head.
- b. A UIPI shall be canceled by IPI/UIPI Cancellation Notice, see Exhibit 11, with approval by the originating shipyard Chief Engineer.
- c. Approved IPI/UIPI cancellation notices shall be distributed by the IPI/UIPI Coordinator. A copy of the cancellation notice, along with a copy of the canceled IPI/UIPI cover sheet marked with the word "CANCELED" and the cancellation date, shall be placed in the history file.
- 7. <u>Forms</u>. If an existing form is to be used, modified, or a new form developed, the following guidelines for preparing forms should be used:
- a. Include instructions for filling out the form or indicate where forms/instructions can be found.
 - b. Forms shall be approved per local procedures.
- c. Provide a filled-in sample form to illustrate action if the form is complex. Identify it as a "Sample".

- d. If new or revised forms are being initiated for the instruction:
 - (1) Make the form a standard size.
 - (2) Label all blocks on the form.
 - (3) Number all the blocks (to key them to instructions).
 - (4) Use check-off blocks to reduce the number of blocks that must be marked "NA."
- (5) Put the blocks on the form in a logical order (e.g., in the order the work is completed).
 - (6) Use existing forms when possible, instead of creating a new form.
- (7) Consider providing instructions on filling the form out on the back of the form. This would apply mostly to forms that would be filled out by mechanics at the worksite where a copy of the instruction may not be readily available.
 - (8) Include the governing instruction number on the form.
- 8. <u>Preparation of a Supplement for Implementation</u>
 - a. Supplemental Information
- (1) UIPIs are developed by a lead shipyard for use by all Naval Shipyards. Because of different facilities, and equipment, in each shipyard, some processes required in the approved UIPI may need further additional information or explanation in order to implement the UIPI at each shipyard. Also, there may be local state or regional OSHE requirements that are not reflected/cited in the Corporate OSHE Section of a UIPI, as well as minor differences between shipyards' organizations that require a Supplement so that the UIPI can be implemented in the least cumbersome manner.
- (2) Typically, the type of supplemental information added is shop assignments, additional environmental or safety controls, etc.
- (3) Supplemental information is intended to accommodate local, state and regional OSHE requirements and organizational differences between shipyards. However, supplemental information shall not change the method/process, or deviate from the approved process/procedure and technical content of the Corporate UIPI.
 - b. <u>Responsibilities/Procedures</u>
 - (1) Local Cognizant Code

- (a) Review the new approved UIPI and develop supplemental information as necessary
- (b) Supplemental information may be developed from existing local instructions, NAVSEA, and Department of Defense (DOD) directives, or special instructions developed for a specific process to provide additional information pertaining to environmental issues, additional safety measures, organizational differences, etc.).
- (c) Supplements may be inserted directly in the approved UIPI in a manner consistent with the procedure for changes outlined in paragraph 4a of this enclosure. Annotate the supplement number (e.g., SUPP-1) and a side bar in the margin at the appropriate location in the basic UIPI.
- (d) The Originator shall prepare a Supplement Sheet, see Exhibit 8, with a brief description of the supplemental information added. Obtain local department approval. Approval from NEPD is required on supplements to UIPIs interfacing with nuclear work.

(2) IPI/UIPI Coordinator

- (a) Review UIPI Supplement Sheet, see exhibit 8 and effective pages in accordance with this instruction.
 - (b) Process, file, and maintain supplements as required.
- (c) Make copies of UIPI package, including supplements, and distribute per UIPI distribution list.
- 9. <u>Preparation, Reviewing, and Issuing UIPIs</u>. The following process is required for preparing, reviewing, approving, and issuing all UIPIs:
- (1) The assigned lead (preparing) shipyard will prepare the initial draft UIPI. To ensure UIPIs embody uniform corporate methods, UIPIs should not be drafted to authorize/allow numerous methods of accomplishing the same process. If there are conflicts with other NAVSEA specifications and instructions, the lead shipyard will forward these to the SEA 04Y/05Y for resolution with the various NAVSEA organizations as soon as they are identified.
- (2) All UIPIs, including those not designated for dual nuclear/non-nuclear use will be made available to Code 2300 for review after the non-nuclear review and concurrence is completed. For all Non-Nuclear UIPIs, the lead/preparing shipyard will obtain their Code 2309 concurrence, to ensure there is no adverse affect to the nuclear program and processes. For UIPIs not designated for dual nuclear/non-nuclear use, Code 2300, as the lead (preparing) shipyard, will concur with that designation.
- (3) The lead shipyard will contact and obtain input from the follow shipyards' technical and process experts, including Code 2300 for those UIPIs designated for dual

nuclear/non-nuclear use. If the follow shipyards do not provide timely input, the lead shipyard shall notify SEA 04Y/05Y of the specifics involved.

- (4) The lead shipyard must obtain all locally required written concurrences from affected codes, e.g. Codes 106, 130, 900, etc., as well as Code 240 and 2309, before providing their draft to NAVSEA for review. Concurrence and approval signatures, and date must be shown on the UIPI cover sheet prior to forwarding for NAVSEA concurrence of the draft UIPI, when the UIPI is to be designated as a best practice/method UIPI.
- (5) The lead shipyard should provide, with the draft UIPI, a brief summary of any issues raised by follow shipyards to date, which will require resolution during the final review period and should send copies of the draft UIPI to follow shipyards. When this action has been completed the preparing shipyard has met its initial issue schedule.
- (6) SEA 04Y/05Y will review and facilitate resolution of any NAVSEA issues, and ensure the process proposed is technically acceptable and achieves the objective of a standardized engineering instruction, process/method and/or training for all the shipyards. If there are no significant technical or process issues and the UIPI achieves these goals, SEA 04Y/05Y will concur that the draft is ready for final review and can be issued as the final draft to all shipyards. SEA 04Y/05Y and SEA 08X will designated those UIPIs to be dual nuclear/non-nuclear use, and will establish a deadline for submitting final review comments.
- (7) At this point, any change must be processed through the lead shipyards' Chief Engineer and Code 2300 for UIPIs designated for dual nuclear/non-nuclear use. The lead shipyard will adjudicate these inputs/comments and modify its draft UIPI to accommodate those items that the preparing shipyard considers should be incorporated into the final issue of the UIPI. When that has been achieved, the lead shipyard will forward the UIPI to SEA 04Y/05Y for final concurrence. If more than one year has passed since the lead yard approval signatures were obtain per paragraph 9.4 of this enclosure, then the lead yard must re-sign the final cover sheet.
- (8) If the lead shipyard is unable to adjudicate the differences between the various shipyards, and still maintain a uniform method/process, the lead shipyard will inform the SEA 04Y/05Y, who will be responsible to obtain other NAVSEA organizational concurrence, where appropriate, prior to providing a final concurrence and/or direction. The differing wording preferred by the lead and follow shipyards and an explanation of the difference should be provided. Adjudication of differences will be accomplished and promulgated by the SEA 04Y/05Y.
- (9) Upon receiving final NAVSEA concurrence to issue the UIPI, the lead shipyard will incorporate NAVSEA comments and issue the subject UIPI in accordance with the established distribution listed in Exhibit 2 of Enclosure (1). This corporate issue will include the NAVSEA Implementing letter for UIPIs with the UIPI as an enclosure.

UNIFORM INDUSTRIAL PROCESS INSTRUCTION (UIPI)

TITLE		NO	***************************************		
<u>SECTIONS</u>		ISSUE DATE			
I EQUIPMENT II MATERIAL III OSH/ENVR IV QA V TRAINING/SKILL VI METHOD VII FEEDBACK	NAVAL SEA SYSTEMS COMMAND	TYPESHIP CLASS CODESHIP SYSTEMTSDKEY SHOPASSIST SHOPS			
DISTRIBUTION SEA 04XB SEA 04XP SEA 04R SEA 04RP SEA 04XQ SEA 04Y/05Y SEA 08X	SEA 05CT SEA 04M3(SHAPEC) SRF Yokosuka, C/240.1 FKP7(C/240) FKP8(C/200) FKP26 (C/200, C/300) Northrop Grumman	ORIGINATOR SHIPYARD CODE PREPARED BY PHONE/DSN E-MAIL			
NRRO Portsmouth, Groton, Newport News, Norfolk, Puget Sound, Pearl NSRO Portsmouth,	Newport News General Dynamics EB Oceaneering International/CLT	CHIEF ENGINEER	Date		
Pearl, Puget, Norfolk NAVSEA Concurrence		C/2300 CONCURRENCE	Date		
SEA 04Y/05Y		CONCURRENCE (others as required)	Date		
OLA 041/051	Date	CONCURRENCE (others as required)	Date		
DISTRIBUTION STATEMENT D: Distribution authorized to DoD and DoD contractors only; Administrative or Operational use (date). Other U.S. requests shall be referred to originating command.					
THIS TYPE "A" IPI/UIPI IS FOR A PROCESS THAT MUST BE SPECIFICALLY INVOKED BY TECHNICAL WORK DOCUMENT (TWD). TYPE A INSTRUCTIONS SHALL BE REFERENCED AND INCLUDED WITH THE TWD (COPY REQUIRED). THIS TYPE "B" IPI/UIPI IS A STANDING INSTRUCTION FOR A PROCESS THAT QUALIFIED PERSONNEL ARE EXPECTED TO KNOW AND PERFORM. TYPE B INSTRUCTIONS SHALL BE CITED IN THE GENERAL REQUIREMENTS SECTION OF THE TECHNICAL WORK DOCUMENT (TWD). THIS TYPE "C" IPI/UIPI IS A STANDING INSTRUCTION FOR A PROCESS THAT QUALIFIED PERSONNEL ARE EXPECTED TO KNOW AND PERFORM. TYPE C INSTRUCTIONS ARE NOT REQUIRED TO BE REFERENCED/CITED IN THE TECHNICAL WORK DOCUMENT (TWD). THIS TYPE "D" IPI/UIPI IS A STANDING INSTRUCTION FOR OPERATION/MAINTENANCE OF SHIPYARD OWNED/LEASED EQUIPMENT. TYPE D INSTRUCTIONS ARE NOT REFERENCED/CITED IN THE TECHNICAL WORK DOCUMENT (TWD).					
PERIODIC REVIEW: THIS INSTRUCTION SHALL BE REVIEWED EVERY					

FOR OFFICIAL USE ONLY (WHEN FILLED IN)

Exhibit 1

INDUSTRIAL PROCESS INSTRUCTION (IPI)

TITLE

SECTIONS

I EQUIPMENT

II MATERIAL

III OSH/ENVR

IV QA

V TRAINING/SKILL

VI METHOD

VII FEEDBACK





CANCELS	
ISSUE DATE	
TYPE	
SHIP CLASS CODE	
SHIP SYSTEM	
TSD	
KEY SHOP	
ASSIST SHOPS	
ORIGINATOR	
SHIPYARD	
CODE	
PREPARED BY	
PHONE/DSN	
APPROVALS	
00101114707	
ORIGINATOR	
CHIEF ENGINEER	

NO. _____

NOTE: For the names typed above, signed originals are on file with the IPI coordinator.

DISTRIBUTION STATEMENT D: Distribution authorized to DoD and DoD contractors only; Administrative or Operational use (date) . Other U.S. requests shall be referred to originating command.

THIS TYPE "A" IPI/UIPI IS FOR A PROCESS THAT MUST BE SPECIFICALLY INVOKED BY TECHNICAL WORK DOCUMENT (TWD). TYPE A INSTRUCTIONS SHALL BE REFERENCED AND INCLUDED WITH THE TWD (COPY REQUIRED). THIS TYPE "B" IPI/UIPI IS A STANDING INSTRUCTION FOR A PROCESS THAT QUALIFIED PERSONNEL ARE EXPECTED TO KNOW AND PERFORM. TYPE B INSTRUCTIONS SHALL BE CITED IN THE GENERAL REQUIREMENTS SECTION OF THE TECHNICAL WORK DOCUMENT (TWD).

THIS TYPE "C" IPI/UIPI IS A STANDING INSTRUCTION FOR A PROCESS THAT QUALIFIED PERSONNEL ARE EXPECTED TO KNOW AND PERFORM. TYPE C INSTRUCTIONS ARE NOT REQUIRED TO BE REFERENCED/CITED IN THE TECHNICAL WORK DOCUMENT (TWD).

THIS TYPE "D" IPI/UIPI IS A STANDING INSTRUCTION FOR OPERATION/MAINTENANCE OF SHIPYARD OWNED/LEASED EQUIPMENT. TYPE D INSTRUCTIONS ARE NOT REFERENCED ON THE TECHNICAL WORK DOCUMENT (TWD) UNLESS AUTHORIZED BY THE COGNIZANT TECHNICAL AUTHORITY.

PERIODIC REVIEW:	THIS INSTRUCTION SHALL	BE REVIEWED EVERY	

FOR OFFICIAL USE ONLY (WHEN FILLED IN)

Exhibit 2

IPI/UIPI FEEDBACK RECORD

PERVISOR SIGNATURE:	SHOP PHON FEEDBACK RECORD TO THE ORIGINATING	1
TOOLSO IIVII TIOVEIVIENT,		
ROCESS IMPROVEMENT:		
PRESENT PROCESS:		
O: ORIGINATING/POINT OF CONTACT CODE		
FROM: NAME	SHOP	SECTIO
FITLE:		

Description of Duty	SY CHIEF ENGINEER	IPI COORD	ORIG/ COG CODE	AFFECTED SHOPS/ CODES	APPL DEPS
Begin IPI Control Process				9	
Identify need for new IPI/Revision/Change				中	
Does IPI exist?	Nc)		\	
Notify Cog Code				Yes	→ (A)
Approve new IPI?	\				
Assign IPI Number					
Create new IPI	No—			→ D	
End					
Begin Periodic Review			-	E	
Is the instruction current?			Ϋ́	A	
Notify the IPI Coordinator in writing that the instruction is current		1	—Yes— —		

Description of Duty	SY CHIEF ENGINEER	IPI COORD	ORIG/ COG	AFFECTED SHOPS/	APPL
		000110	CODE	CODES	DEPS
Revise the review due date and update the IPI Index					
End					
			A		
Is modification within scope of change?			Ϋ́	lo. ≯ B	
Prepare the change and distribute to affected Codes/ Shops for review and signature			—Yes—		
Forward change to Chief Engineer for approval signature					
Sign change and forward to IPI Coordinator					The second secon
Issue the approved change for shipyard distribution and update the IPI Index		$\dot{\uparrow}$			
End					
			₿		
Cancel Instruction?			Υ	s►C	
Prepare revision			No-	→ ②	
Begin or End of process	Process s	step	\Diamond	Decision s	tep

Exhibit 4

Description of Duty	SY CHIEF ENGINEER	IPI COORD	ORIG/ COG CODE	AFFECTED SHOPS/ CODES	APP DEP
Conduct review and forward all comments to originator.				2	
Resolve comments, prepare signature copy and send out for approval signatures			Ļ		
Sign and forward to IPI coordinator	†				
Issue the approved revision/new IPI for shipyard distribution and update the IPI Index		†			
End					
			©		
Submit request to cancel					
Route cancellation package					
Review and forward written concurrence or objections within 30 calendar days					
Forward replies and a Cancellation Notice for signature to the originator		+			
Resolve objections to cancellation			-		
			3		

Description of Duty	SY CHIEF ENGINEER	IPI COORD	ORIG/ COG CODE	AFFECTED SHOPS/ CODES	APPL DEPS
All agreed?			3		
Cognizant S/Y Division Head approves the Cancellation Notice	No 		Yes 		
Distribute the approved Cancellation Notice and update the IPI Index		Image: Control of the			
End				Yes	
Resolve conflicts?	\rightarrow				
	No E				
					701170
Begin or End of process] Process s			Decision st	

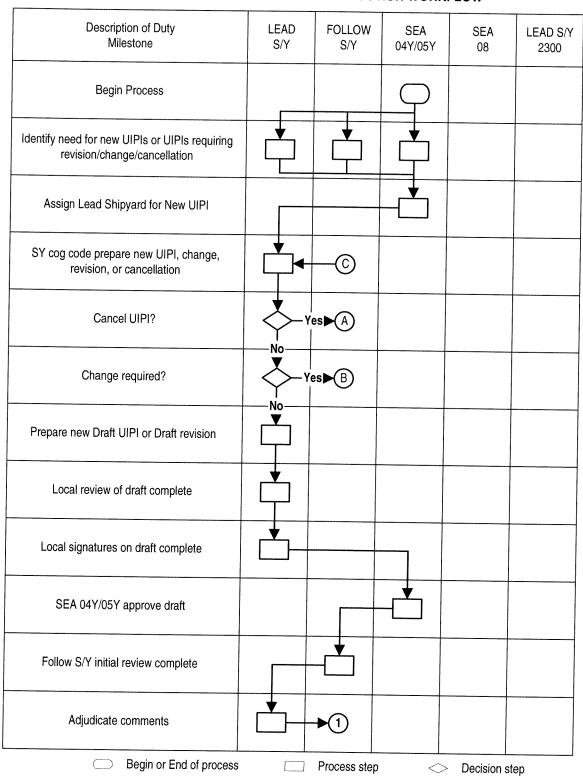


Exhibit 5

		1	T	T	
Description of Duty Milestone	LEAD S/Y	FOLLOW S/Y	SEA 04Y/05Y	SEA 08	LEAD S/Y 2300
Follow S/Y final review (Repeat steps as necessary)		1			
Nuclear review for dual use (N-CNR)					
Adjudicate comments					+
Obtain signatures for final issue					
Forward for corporate approval					
SEA 04Y/05Y concurrence					
SEA 08 concurrence					
Corporate issue					
End					
Begin or End of process		Process step		Decision st	tep

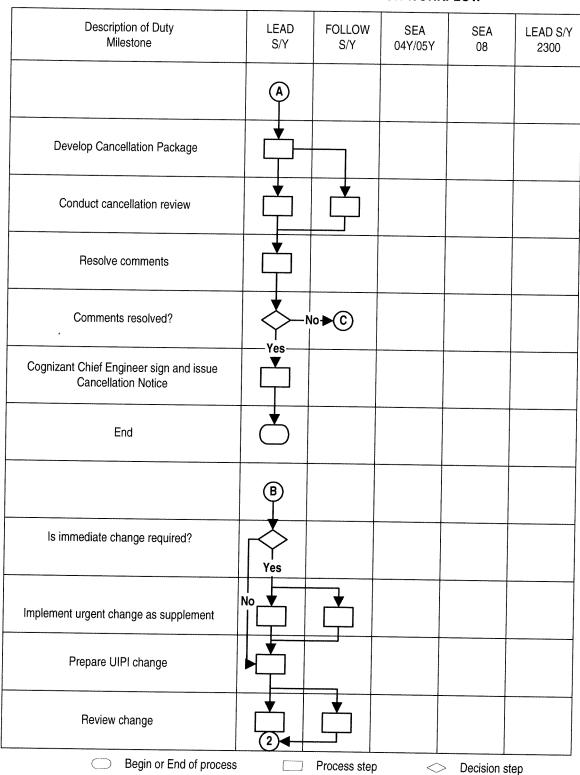


Exhibit 5

		0 111011100			
Description of Duty Milestone	LEAD S/Y	FOLLOW S/Y	SEA 04Y/05Y	SEA 08	LEAD S/Y 2300
Adjudicate comments	2		·		
Obtain local signatures	<u> </u>				
Fwd to SEA 04Y/05Y for approval and corporate issue			—		
Develop local supplement, obtain approval signatures, and inplement locally	Image: Control of the				
End	$\stackrel{\bigstar}{\bigcirc}$				-
Begin or End of process		Process step		Decision st	ep

REQUIREMENTS TREE FOR

NAVSHIPYDPUGET INDUSTRIAL PROCESS INSTRUCTION 0505-903 Orig. Code 260.3

Local/ IPI Paragraph Responsible Off Source Requirement Source Number Number Requirement Description Shop/Code Station Reference Para. # Comments 0505-903 Requirement for personnel involved in the handling and 6.4.3.4.6 Shop 90 NAVSHIPYDPUGET Local Process Instruction 0593disposal of plumbing system 716 and CHT system fluid to observe precautions of ref 0505-903 6.4.3.4.6 Requirement for personnel Shop 90 OS BUMED 6230,15 Local involved in the handling and disposal of plumbing system and CHT system fluid shall have received polio and tetanus-diphtheria inoculations 0505-903 6.4.3.4.7 Requirement for eyewash Shop 90 L **NAVSHIPYDPUGETINST** Section 2 stations where hazardous 5100.66 Chapter 6 wastes are transferred 0505-903 6.4.3.4.9 Requirement to contain and Shop 90 L **NAVSHIPYDPUGETINST** Local clean up any liquid spilled 5090.1 outside areas subject to radiological controls 0505-903 6.4.3.5 Rqt to segregate all liquid Shop 90, L NAVSHIPYDPUGETINST Appendix wastes except "gray water" in **ENV COORD** 5090.5 portable tanks prior to Code246 WTC discharge to sanitary sewer

GUIDELINES FOR BUILDING REQUIREMENTS TREES FOR IPI's

Column A: Copy and paste the IPI/UIPI number from top to bottom of the Tree in

this column. (EXCEL SPREADSHEET)

Column B: List each paragraph number which identifies a "requirement" in this

column. Include requirements (if found) in the Purpose, Scope, and all

enclosures and appendixes.

Column C: Provide a brief description of requirement in this column. If the

paragraph identifies more than one requirement, enter the next

requirement on the next row, etc.

Column D: If the requirement identifies a responsible shop or code, list it in this

column. If the requirement is a general Shipyard requirement, indicate it

as "SHIPYARD".

Column E: Indicate "L" if the source requirement is a local (Shipyard) generated

source, or OS if the source requirement is off station, i.e.: NAVSEA.

VENDOR, CODE OF FEDERAL REGULATIONS, ETC.

Column F: List the Source Requirement Reference in this column. If the

requirement description identifies multiple source requirement

references, list each one on a separate row. Where the same source reference is used more than once in the tree, write it exactly the same

way each time it is used.

Column G: Indicate the paragraph number within the source requirement reference

which identifies the requirement. If it is a general requirement, write

"Local" in this column.

Column H: Used for any comments which may be valuable.

			RevCh	
Document holder will mak	e the follow	ving changes:		
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UIPI Number	Revision	CHANGE	SUPP	
Supplemental Information				
Brief Description:				
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ORIGINATOR:	DATE:	CODE 2300:		
ORIGINATOR: *CODE 106:	DATE: DATE:	* CODE 105: CHIEF ENGINEER:		DATE:
*CODE 130:	DATE:	* CODE 105:		DATE:
*CODE 130:	DATE: DATE:	* CODE 105: CHIEF ENGINEER:		DATE:
*CODE 130:	DATE: DATE:	* CODE 105: CHIEF ENGINEER:		DATE:
*CODE 106: *CODE 130: *Code 980:	DATE: DATE:	* CODE 105: CHIEF ENGINEER:		DATE:
*CODE 130:	DATE: DATE:	* CODE 105: CHIEF ENGINEER:		DATE:
*CODE 106: *CODE 130: *Code 980:	DATE: DATE:	* CODE 105: CHIEF ENGINEER:		DATE:

Enclosure (1)

UIPI SUPPLEMENT SHEET

ORGANIZED COMMENTS LIST

Use this table below to organize your comments and group by shipyard.

COMMENTS FROM PEARL HARBOR NAVAL SHIPYABD

COMMENTS FROM PORTSMOUTH NAVAL SHIPYARD

	RESPONSE TO COMMENTS	TED MODIFICATION COMMENTS							
	B	ADOPTED ADOPTED				-			
	0								
COMMENTS PROFILED FOR SMOOTH NAVAL SHIPYARD	COMMEN 13 RECEIVED FROM PORTSMOUTH NAVAL SHIPYARD	RESOLUTION SUGGESTED							
HIDOMOI HO	ED FROM PORT	FROM PARA. NO. COMMENT							
T NOTO OTIVEN	VIEIN I O RECEIV	PARA. NO.							
		FROM							
ITEM	<u> </u>	-		7	 က	 4	***************************************	2	

Exhibit 10

COMMENTS FROM PUGET SOUND NAVAL SHIPYARD

				T	 	 		
		C HATTANACO	COMMENIS					
	RESPONSE TO COMMENTS	ADOPTED WITH						
	RESPONS	NOT						
		ADOPTED						_
	COMMENSATION OF THE SHIPTING THE SOUND NAVAL SHIPTING THE	RESOLUTION SUGGESTED						
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N CC								
		ITEM	-	2	3	4	5	

COMMENTS FROM NORFOLK NAVAL SHIPYARD

		COMMENTS						
	RESPONSE TO COMMENTS	ADOPTED WITH MODIFICATION						-
	RESPON	AD						
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AL SHIPYARD	COMINICIALS RECEIVED FROM NORFOLK NAVAL SHIPYARD	RESOLUTION SUGGESTED						
COMMENTS PROFILED TO SECONDATE OF THE PROFILED PROFILED TO SECONDATE OF THE PROFILED TO SECONDATE OF TH	EIVED FROM NO	FROM PARA. NO. COMMENT						•
	IIVIEIN I O MEC	PARA. NO.						
	5							
		ITEM		2	က	4	2	

Exhibit 10

IPI/UIPI REVISION SHEET	
INSTRUCTION NO	REV.
Revision - Brief Description:	
1.	
This document has been reviewed by Codes/Shops:	
All comments from reviewing Codes/Shops have been	incorporated in this document or otherwise resolved.
ORIGINATOR SIG	
ORIGINATOR SIG	
FIRST LEVEL SUPERVISOR SIG	DATE
SECOND LEVEL SUPERVISOR SIG	DATE

IPI/UIPI CANCELLATION NOTICE

IPI/UIPI No.
TITLE
The proposed cancellation of this instruction was issued for shipyard review, and all concurred that the instruction should be canceled. It is to be replaced with
(If there is no superseding document, enter "not applicable")
2. Holders of this instruction shall remove it from their file.
APPROVED
DATE
DISTRIBUTION: